

## ABSTRACT OF THE DISCLOSURE

An input voltage detection method, for a PWM cycloconverter whose operation can be stably continued though a power voltage sharply fluctuates, and an apparatus therefor  
5 are provided.

For a PWM cycloconverter, provided are: an input power voltage phase detector 41, for detecting the phase of three-phase AC power; an artificial DC bus voltage detector 42, for detecting the magnitude of the three-phase AC power;  
10 an input voltage upper and lower limit calculator 43, for employing the output of the artificial DC bus voltage detector to calculate upper and lower limits for an input voltage; and a voltage comparator 46, for comparing a voltage value,  
detected by the artificial DC bus voltage detector, with the  
15 upper and lower limit values obtained by the input voltage upper and lower limit calculator. The output of the voltage comparator is adjusted, so that the voltage value detected by the artificial DC bus voltage detector falls within the upper and lower limit values obtained by the input voltage upper and  
20 lower limit calculator.